

Analysis on price change of food and house in NZ

Introduction :

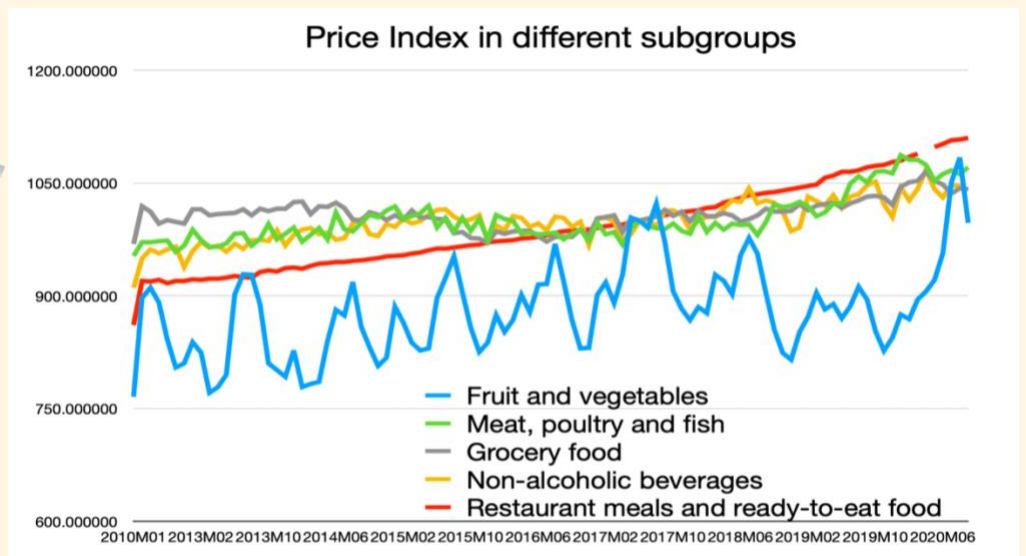
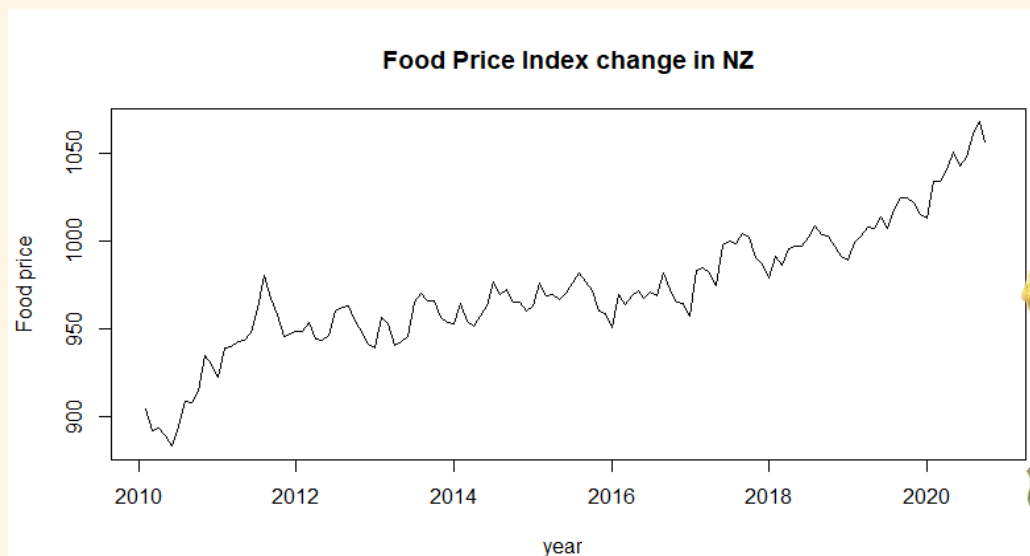
In recent years, the cost of living in New Zealand has gradually increased. Housing and food prices are now the most concerned issues in people's lives. The price trends of food and houses will be investigated, and the relationship between them and their factors will be discussed.

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Objectives :

- ✧ To evaluate the trend of house and food price in New Zealand.
- ✧ To identify the relationship between food and house price and associated factors.
- ✧ To explore the impact of the COVID-19 on price changes.

Results :



Surprisingly, the overall food price in NZ has shown a continuous upward trend in past 10 years. Lowest food price index shows in 2010 at 888.97, the maximum price is at 1068 this year, rising by **16.7%** on average.

The most obvious rapid increase comes from restaurant meals for last 10 years, the price index reaching at the maximum of **1110** in 2020. Meat, non-alcoholic beverages, and grocery food shows the most stable trend. The price of fruit and vegetables changes regularly with the seasons, reaching an unexpected high in 2020.



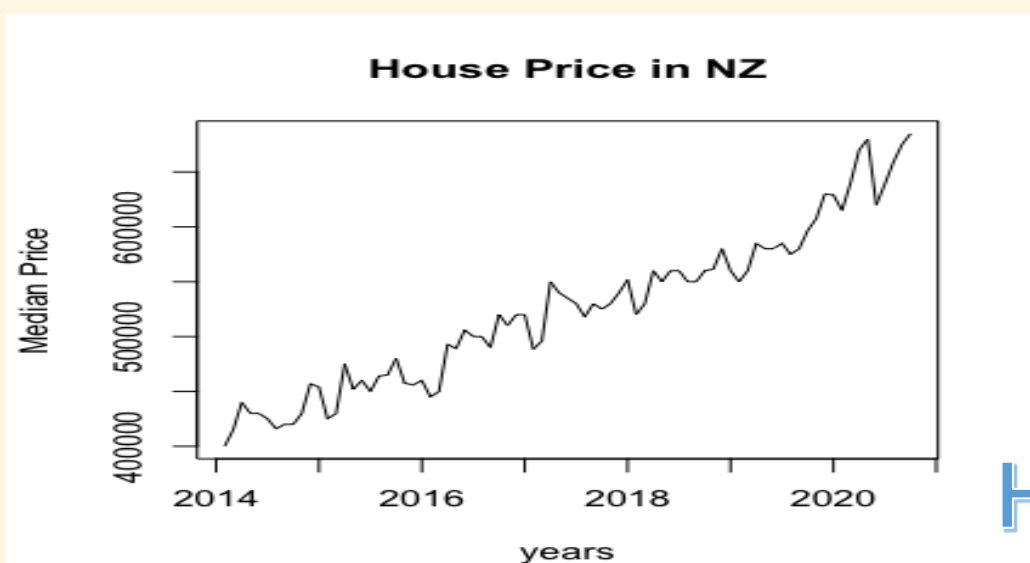
T-tests:

Relationship with inflation p-value: 0.5172

Relationship with minimum wage p-value: 6.892e-06

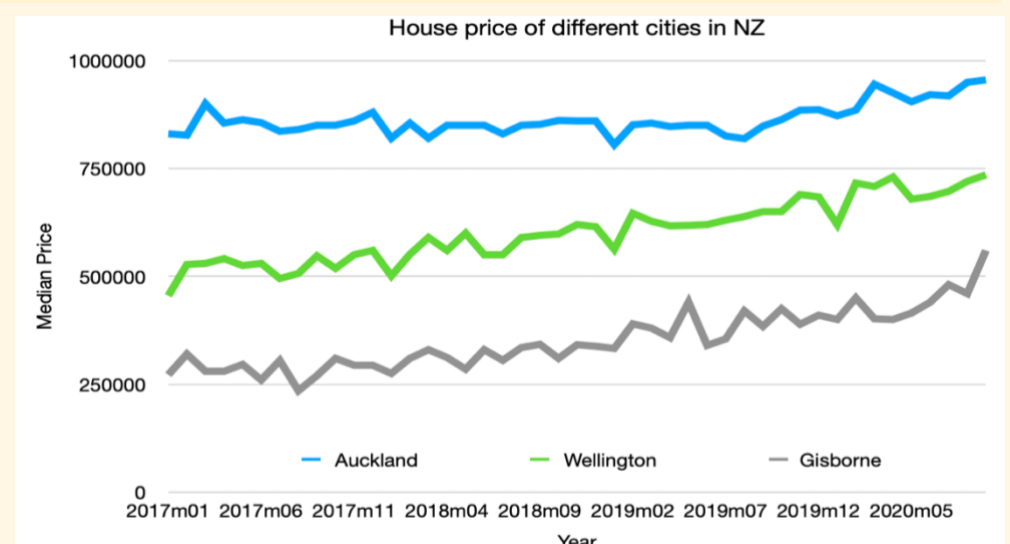
- Correlation test does not find any relationship between inflation rate and food price. There is strong evidence to show that food price will increase with minimum wage rises.

Results :



HOUSE

The house price in NZ had a sharp increasing for the last 6 years. Housing price has not been affected by COVID-19, the median price has reached at an unprecedented high of **\$685,000** in September 2020. Auckland house price is the most expensive one among all other cities. The highest price is at **\$955,000**, which even exceeded the maximum of median house price in NZ this year.



T-tests:

Relationship with Population p-value: 0.6954

There is no evidence to show that house price will increase with higher city population.

Conclusion :

In recent years, food prices in NZ have continued to rise along with the increase in the minimum wage and reached a peak due to the lockdown. Inflation has not affected the food price to a certain extent. Furthermore, city with more population will not lead to more expensive house price and the sharp increase in house price has made a house market booming.

References :

- S. (2020, October 13). Food price index: September 2020: Stats NZ. Retrieved November 06, 2020, from <https://www.stats.govt.nz/information-releases/food-price-index-september-2020>
- Median price - REINZ. (2018, September 12). Retrieved November 06, 2020, from <https://www.interest.co.nz/charts/real-estate/median-price-reinz>